Site Name: Sunshine Laundry, Fort Dodge

Brownfield Initial Site Screening (ISS)

CON 12-15
Doc #19329

Project Manager: Hylton Jackson

Date: 7/10/2008

☒ **3931 - Phase II Assessment Review - standard**
Phase II submitted as part of standard real estate development, pre-purchase agreement, or other due diligence, not a part of a community grant project, or

☐ **3837 - Phase II Assessment – grant funded**
Phase II submitted as part of an EPA grant funded community-wide or targeted assessment project – see Mel Pins if questions on this determination

Location:

Latitude: 42.503510 *Longitude: 94.164003* ***County:*** *Webster*
(Decimal Degree format)

USGS Quadrant: *Fort Dodge N 7.5'*

Site Size: *0.93*

Site Dimension: ☒ Acres ☐ Square Feet ☐ Feet ☐ Square Miles ☐ Miles

Site Alias Name(s): _____

Congressional District: *4*

Grant Recipient Name, Address & Contact: _____

Current Owner & Address:
Sunshine Company, LC
2422 5th Ave. S
Fort Dodge, IA 50501

Responsible Party Name(s) & Address, if different from current owner:

Site Street Address or Tier, Range, Section & Subsections (if street address is unknown)
2422 5th Avenue
Fort Dodge, IA 50501

1.0

0000

T 89 N, R 28 W, SW ¼ Sec 21

Directions to site:

From US-20 south of Fort Dodge take the CR-P59 exit, (Exit 124), toward US-20 Business/Fort Dodge/Coalville, proceed 0.3 mi. Turn right onto Nelson Ave/CR-P59, proceed 3.5 mi. Turn left onto US-20 BR/CR-P59/200th ST. Continue to follow US-20 BR, proceed 1.8 mi. End at 2422 5th Avenue.

Summarize the site history (past usages, past ownerships, wastes, known or suspected contamination pathways such as tanks, septic tank/tile field, lagoon, land applications, S.W. burial, etc)

A Phase I report was referenced in the Phase II but the Phase I was not submitted to the Department for review. The site was a former dry cleaning facility which operated for approximately eight years. The Phase II referenced EPA documents that indicated tetrachloroethene (PCE) stored in the shed on northern portion of the site had leaked on some occasions. No other reference to site history was provided.

Briefly describe the site assessment that was conducted (number of borings, monitoring wells, number of samples, depth of soil samples and monitoring wells, analysis, etc.)

As a result of the information obtained in the Phase I report, a soil and groundwater Phase II site Environmental site Assessment was performed by Burns and McDonnell Engineering Company, Inc. Ten borings (DP-1 through DP-10) were advanced to depths from 20 to 26 feet below ground surface (bgs). A soil sample was collected from each boring after field screening for organic vapors using a photo ionization detector (PID). All ten soil samples were analyzed for volatile organic compounds (VOCs). A groundwater sample was collected from each boring and analyzed for VOCs. Two sub-slab vapor samples (SVP-1 and SPV-2) were collected below the slab of the main building. The soil vapor samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX), PCE, trichloroethene (TCE), chloroform, methylene chloride, and vinyl chloride (VC).

Summarize the findings and conclusions regarding the contaminants found and their extent and concentrations. Relate those values to known criteria such as statewide standards, MCLs, water quality standards, background levels or other benchmarks used to determine site priority.

Soil:

PCE was detected in one soil sample above Statewide Standard. TCE, Cis-1,2-Dichloroethane (Cis-1,2-DCE), Trans-1,2- Dichloroethane (Trans-1,2-DCE), and 1,2-Dichloroethane (1,2-DCE) were detected in one or more soil samples below their applicable Statewide Standard. No other soil contaminants were detected above laboratory detection limits. See Table below.

Concentrations that exceed the Statewide Standard in **Bold**

	Contaminant (mg/kg)				
Sample Location	PCE	TCE	Cis-1,2-DCE	Trans-1,2-DCE	1,2-DCE
DP-1 (Dup)	0.319	0.008	0.0106	ND	0.0135
DP-2	0.034	ND	ND	ND	ND
DP-3	ND	ND	ND	ND	ND
DP-4	1.850	ND	ND	ND	ND
DP-5	0.0167	ND	ND	ND	ND
DP-6	0.291	ND	ND	ND	ND
DP-7	ND	ND	ND	ND	ND
DP-8	0.262	0.0105	0.0148	ND	0.0194
DP-9	**22.1**	0.052	ND	ND	ND
DP-10	ND	ND	ND	ND	ND
Statewide Standard (mg/kg)	5.7	7.7	760	1500	34

ND - Compound not detected above laboratory detection limits

Groundwater:

PCE; TCE; Cis-1,2-DCE; Trans-1,2-DCE; 1,2-DCE; and VC were detected in one or more groundwater samples above their applicable Statewide Standard. No other groundwater contaminants were detected above the applicable Statewide Standard. See Table below Concentrations that exceed the Statewide Standard in **Bold**

	Contaminant (mg/L)							
Sample Location	PCE	TCE	1,2-DCE	Cis-1,2-DCE	Trans-1,2-DCE	1,2,4-Trimethyl benzene	VC	Chloroethane
DP-1	0.012	ND	ND	ND	ND	ND	ND	ND
DP-2	**0.034**	ND	ND	ND	ND	ND	ND	ND
DP-3	**0.0664**	ND	ND	ND	ND	ND	ND	ND
DP-4	**0.190**	ND	**0.0264**	**0.0243**	0.0021	ND	ND	ND
DP-5	**0.0248**	ND	ND	ND	ND	ND	ND	ND
DP-6	**1.040**	**0.0379**	**0.0070**	0.0070	ND	ND	ND	ND
DP-7	**0.511**	ND	ND	ND	ND	ND	ND	ND
DP-8	**0.178**	**0.103**	**0.440**	**0.302**	**0.139**	ND	**0.0023**	0.0014
DP-9/Dup-1	**2.140**	0.0048	**0.0099**	0.0069	0.0030	0.0013	ND	ND
DP-10	ND	ND	ND	ND	ND	ND	ND	ND
Statewide Standard* (mg/L)	.005	.005	.005	.07	.1	.35	.002	NA

*Statewide Standard for Protected Groundwater

ND - Compound not detected above laboratory detection limits

Soil Vapor:

PCE; and m,p-xylene were detected in sub-slab vapor samples above the laboratory detection limits. The detection limit for sample # SVP-1/AR01 was 4.7 ug/m^3. Due to a dilution factor, the detection limit for SPV-2/AR01 was 7,800 ug/m^3. No other contaminants were detected above the detection limits. While there are no Statewide Standards for sub-slab soil vapors, the detected concentrations were converted to indoor air concentrations (using an attenuation factor of 0.1) and the results were entered into the Land Recycling Program (LRP) cumulative risk calculator. The site is not enrolled in the LRP and the use of the cumulative risk calculator to evaluate the detected contaminant concentrations does not infer that a risk assessment has been completed for this site. The results of the cumulative risk calculation are referenced here because it is the only method available to evaluate sub-slab soil vapor concentrations. See Table below for detected concentrations.

Concentrations that exceed the LRP cumulative risk calculator for site worker in **Bold**

Contaminant	Sample Number/Location	
(ug/m^3)	SVP-1/AR01*	SPV-2/AR01
PCE	170	**630,000**
m,p-x ylenes	4.9	ND

* Soil vapor sample SVP/AR01 failed the chemical leak test (helium) and the results are considered invalid.

Identify on-site or off-site potential and actual targets (e.g., municipal wells, private wells, drinking water intakes). What is known of the neighboring area, i.e., are there residences, businesses, public use areas, etc.? Are there utility lines that could be impacted by site contaminants? Identify any other use/location issues that deserve consideration.

The site is on the southwestern side of Fort Dodge, in a commercial and industrial area. Aerial photographs indicate the site is 1,400 feet west of the nearest residence. The site is not in a source water protection zone for any public water supply but IDNR Geosam records indicate a private well (Steve and Judy Rezek) is located 900 feet south of the site. It is assumed that the site is served by municipal water and sewer.

Rate the site on a scale of 1 to 4, in decreasing order of severity or priority.

2

Summarize the reasoning, knowledge or any other information used in determining your recommendation regarding the priority assigned to this site.

Soil and groundwater at the site have been impacted by contamination. Chlorinated solvents have been detected in groundwater samples above the Statewide Standard for Protected Groundwater and above the Statewide Standard for Non-Protected Groundwater. PCE was detected in one soil sample at a concentration that exceeded the Statewide Standard. PCE has also been detected in the valid soil vapor sample at a concentration that fails the LRP cumulative risk calculator by several orders of magnitude (with the assumed attenuation factor of 0.10). Nature and extent of the soil and groundwater contamination has not been determined and groundwater gradient has not been established. Further assessment by the Responsible Party will be required and the site will go on to an ESS under CERCLA.

Site recommended for:

☐ No further action
☐ Additional investigation under state program (activity code 2824)
X Additional investigation under CERCLA (Extended Site Screening)
☐ Additional investigation by responsible party
☐ Transfer to LUST/UST

Form Reviewed: Cal Gallup **Date Reviewed:** 7/10/08

Sunshine Laundry, Fort Dodge